



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/295,913	04/21/1999	HOWARD B. SOSIN	2001611-0008	7739

7590

07/11/2003

ELIZABETH E NUGENT CHOATE HALL & STEWART
EXCHANGE PLACE
53 STATE STREET
BOSTON, MA 021092891

EXAMINER

CRAIG, DWIN M

ART UNIT

PAPER NUMBER

2123

DATE MAILED: 07/11/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Applicati n No.

09/295,913

Applicant(s)

SOSIN, HOWARD B.

Examiner

Dwin M Craig

Art Unit

2123

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period of Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 April 1999.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-45 is/are pending in the application.
- 4a) Of the above claim(s) 25-45 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4, 6-18 and 21-24 is/are rejected.
- 7) ☒ Claim(s) 5, 19 and 20 is/are objected to.
- 8) ☒ Claim(s) 1-24 are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 April 1999 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4 and 5.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:

- I. **Claims 1-24** are drawn to a method of designing a customized matched set of Golf Clubs using a computer, (Computer Aided Design) CAD, classified in class 703, subclass 1.
- II. **Claims 25-45**, drawn to a matched set of Golf Clubs, classified in class 473, subclass 287.

1.1 The inventions are distinct, each from the other because of the following reasons:

Inventions "*a method of making a customized Golf Club*" and "*a set of matched Golf Clubs*" are related as the process of making and the product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case the Matched Set of Golf Clubs could be designed using a method other than the one disclosed in Applicant's claims, and the method used by the Applicant to design the Matched Set of Golf Clubs could be used to design a "*generic*" set of Golf Clubs.

1.2 Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

1.3 As per the conversation with Applicant's representative *Charles Lyon*, as per Applicants request (*see paper #6*), where the Attorney of Record, *Elizabeth*

Art Unit: 2123

Nugent Reg. No. 43,839, has indicated that *Charles Lyon* is authorized to act as an agent for purposes of prosecution of this application as per CFR 10.9(b);

37 CFR 10.9. Limited recognition in patent cases.

- (a) Any individual not registered under §10.6 may, upon a showing of circumstance which render it necessary or justifiable, be given limited recognition by the Director to prosecute as attorney or agent a specified application or specified applications, but limited recognition under this paragraph shall not extend further than the application or applications specified.
- (b) When registration of a resident alien under paragraphs (a) or (b) of §10.6 is not appropriate, the resident alien may be given limited recognition as may be appropriate under paragraph (a) of this section.

The Applicant has communicated, in a telephone conversation, between the Examiner and *Charles Lyon*, on the 21st of May 2003 at 3:16PM EST, to Elect Claims 1-24 and to withdraw Claims 25-45 from consideration as required (37 CFR 1.143).

- 1.4 Applicant is respectfully reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

- 1.5 The Applicant has chosen to elect **Claims 1-24** for Examination and withdraw **Claims 25-45** from consideration. The Applicant must acknowledge this in the next response to this Office Action.

Specification

2. The disclosure is objected to because of the following informalities: The first sentence on page 1 of the specification is: "*The rules of golf allow a golfer to carry a golfer to carry a*

Art Unit: 2123

maximum of fourteen clubs” the Examiner notes that Applicant intended for the first sentence to read: “*The rules of golf allow a golfer to carry a maximum of fourteen clubs*”. Appropriate correction is required.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-4, 6-18 and 21-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wood U.S. Patent 6,083,123 in view of Nesbit et al. U.S. Patent 5,877,970.

3.1 As regards independent **Claims 1 and 23** the *Wood* reference discloses a method of designing a customized golf club (**Figures 2-4**), determining a tempo for a particular golfer (**Col. 6 Lines 43-49**), determining a force function based on club length (**Col. 6 Lines 58-63, Col. 7 Lines 21-29, Col. 7 Lines 51-58, Col. 7 Lines 65-67, Col. 8 Lines 5-7, Col. 9 Lines 19-26, Col. 9 Lines 31-43**), shaft flexibility (**Col. 10 Lines 35-42**), using different design parameters to calculate optimum values for the customized golf club (**Figure 3 Items 310, 312 and 314**).

However, the *Wood* reference does not expressly disclose designing a customized golf club based on the mass and design of the club head.

The *Nesbit et al.* reference discloses designing a custom golf club head based on the mass of the head (**Figure 2, Col. 2 Lines 30-34**).

It would have been obvious, to one of ordinary skill in the art, at the time of the invention, to have modified the *Wood* reference with the *Nesbit et al.* reference because (*motivation to combine*) the *Nesbit et al.* reference discloses that the mass properties of a club head play an important role in the golf shot (*Nesbit et al. Col. 1 Lines 30-45*), and the primary motivation for developing an automated method to design a golf club is to improve performance.

3.2 As regards independent **Claim 2** the *Wood* reference discloses speed (**Col. 6 Lines 40-43**).

3.3 As regards independent **Claim 3** the *Wood* reference does not expressly disclose the centripetal force applied along the shaft at impact.

The *Nesbit et al.* reference discloses the centripetal force applied along the shaft at impact (**Col. 1 Lines 30-45**).

It would have been obvious, to one of ordinary skill in the art, at the time of the invention, to have modified the *Wood* reference with the *Nesbit et al.* reference because (*motivation to combine*) the *Nesbit et al.* reference discloses that the mass properties of a club head play an important role in the golf shot (*Nesbit et al. Col. 1 Lines 30-45*), and the primary motivation for developing an automated method to design a golf club is to improve performance.

3.4 As regards dependent **Claims 4, 11-13** the *Wood* reference discloses length (**Col. 3 Lines 5-20**).

3.5 As regards dependent **Claim 6** the *Wood* reference discloses loft (**Col. 6 Lines 58-62, Col. 9 Lines 1-7**).

3.6 As regards dependent **Claims 7 and 8** the *Wood* reference discloses “*design loft*” (**Col. 6 Lines 56-62, Col. 6 Lines 1-7**).

Art Unit: 2123

3.7 As regards dependent **Claim 9** the *Wood* reference discloses the angle of the club (Col. 3 Lines 11-20).

3.8 As regards dependent **Claim 10** the *Wood* reference discloses tempo (Col. 6 Lines 43-49).

3.9 As regards dependent **Claims 14-18** the *Wood* reference discloses (Col. 2 Lines 66-67, Col. 3 Lines 1-51, Col. 7 Lines 29-67, Col. 8 Lines 1-10).

3.10 As regards dependent **Claim 21** the *Wood* reference (Col. 8 Lines 25-67, Col. 9 Lines 1-19).

3.11 As regards dependent **Claim 22** the *Wood* reference does not expressly disclose a CAD/CAM system however; the *Wood* reference does disclose an Expert system (Col. 4 Lines 35-43).

The *Nesbit et al.* reference discloses a computer aided design system (Figure 23, Col. 4 Lines 12-33).

It would have been obvious, to one of ordinary skill in the art, at the time of the invention, to have modified the *Wood* reference with the *Nesbit et al.* reference because (*motivation to combine*) the *Nesbit et al.* reference discloses that the mass properties of a club head play an important role in the golf shot (*Nesbit et al. Col. 1 Lines 30-45*), and the primary motivation for developing an automated method to design a golf club is to improve performance.

3.12 As regards dependent **Claim 24** the *Wood* reference discloses "*Rotation*" (Col. 7 Lines 5-19).

Allowable Subject Matter

Art Unit: 2123

4. **Claims 5, 19 and 20** are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.


Conclusion

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dwin M Craig whose telephone number is 703 305-7150. The examiner can normally be reached on 9:00 - 5:00 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kevin Teska can be reached on 703 305-9704. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 746-7239 for regular communications and (703) 746-7238 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703 305-3900.

DMC
July 7, 2003


HUGH JONES Ph.D.
PRIMARY PATENT EXAMINER
TECHNOLOGY CENTER 2100